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THE JOURNAL OF GEOGRAPHY

A MAGAZINE FOR TEACHERS

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The JOURNAL *of* GEOGRAPHY

VOLUME XXI OCTOBER, 1922 NUMBER 7

SOME SUGGESTIONS FOR NEEDED LINES OF EMPHASIS IN OUR NORMAL SCHOOL GEOGRAPHY[1]

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BASIS FOR NEED OF THIS DISCUSSION

The need for discussion of this topic is evident when we recognize the existence of several unfortunate aspects of our professional geography. (1) The geographical state of mind of entering normal school students and their remembrance of the manner in which they have studied geography still give us anxious moments. (2) The interesting but alarming statement made by city superintendents and directors of training schools in this region that many normal school graduates "revert to type" when they return to the elementary school as teachers ought to perturb us greatly. (3) Actual observation of much inadequate teaching of geography in the elementary schools, as well as information derived by "hearsay" convinces us that "reverting to type" is undesirable in far too many instances. (4) Inadequate or absolute lack of preparation on the part of many special teachers of geography in the grades, junior, and senior high schools remains a grave problem.

It would seem then that normal school teachers must exert upon the students coming under their instruction an influence strong enough to counteract the above and no doubt other pernicious situations.

Greater emphasis must be placed upon various phases of geography in our normal schools in order that true ideals, correct motives, and worth-while application of theories may become an inherent part of the geographical caliber of our students so that they will remain true to their knowledge of the best,—constituting, if need be, an oasis of real geographical pursuit in the midst of surroundings redolent with formal work (called "geography" on the school program).

[1] This paper was presented at the New England Geographical Conference at Clark University, January 20, 1922.

Students must possess, however, the ideals, the knowledge, before they can become teachers of true geography. Since it is largely under the guidance of normal school instructors and training school teachers that this state of mind is developed, the greatness of our responsibility leads to suggestions of several lines of needed emphasis in our geography work.

CONTENT OF GEOGRAPHY

Thru the medium of our classrooms, and their observation and teaching in the training school, our students must acquire and apply a good working definition of geography. If we believe that geography does have to do with the earth as the present and future home for people, then our students must carry on this notion, and use it constantly as their check in selecting valuable teaching material in geography and in discarding other material.

We must see to it that our students recognize that geography is a definite field of study, that it has definite content, that it is no longer a scrap-bag of diverse bits of study collected from geology, mineralogy, astronomy, biology, history, art, and what-not. They must know the true content of geography, must know just what our physical environment comprises and just what life responses grow directly or indirectly out of physical environment, thus forming part of the real content of geography. Naturally all this is very clear to us, but we must remember that we are battling against decades of inadequate or incorrect understanding of the content of geography; we must remember the "reversion to type" referred to earlier and beware lest in the minds of our students all of the foregoing is as clear as mud!

When these prospective teachers "arrive" sufficiently really to feel that the function of the student and teacher of geography is to interpret the significance of physical environment to man, then we may feel that we have not taught in vain.

It seems to me that every normal and training school teacher of geography ought to read at least once a week the "thirteen points" presented by Professor Barrows as "specific objects for instruction in elementary geography."[2]

GEOGRAPHIC INTERPRETATION

Our students, the prospective teachers in the elementary schools of New England, must understand clearly the nature and value of geographic interpretation—the explanation of the adjustment of people to the regions wherein they live or are likely to live.

[2] *Journal of Geography*, April, 1921.

The great mission of geography in our lives, as members of a world group, is the ability it gives us to understand the varied peoples of the world in their varied natural settings; to know and understand the ways in which they make their living, how their needs and luxuries are supplied, their inter-relations with other peoples; their customs, recreations, and culture in so far as these characteristics bear some definite relationship to their natural surroundings.

More and more emphasis ought to be placed upon adequate geographic interpretation of the relation of people to the environment in which they live. Our students must possess this ability, to interpret regions and peoples from a geographic view point, so thoroly a part of their mental fibre that a resuming of by-gone tactics in their own classrooms may bring pangs of mental and spiritual anguish.

It seems unnecessary to speak in any more detail of the content of geographic interpretation, for we are to have the privilege this evening of hearing one skilled in the art interpret the "Life of the Japanese in their Environment—Japan." My chief regret is that we are not invited to stay long enough here at Clark to have the opportunity also to hear Miss Semple speak with the authority and charm that only she possesses of the Mediterranean region and its life.

Interpretative Regional Geography upon a Geographic Basis

It is my earnest conviction that geographical facts ought to be acquired in connection with a systematic, scientific study of definite regions of the world.

Abstract principles are of little permanent value and meaning to students unless appreciated in their application. Why not teach necessary geographical concepts and principles in connection with some important region of the world where these influences are operative in the adjustment of human activities? To teach in an isolated manner—granted that the method of procedure may be logical—such notions as "variation in angle of sun's rays," "planetary wind systems," "cyclonic storms," "plains," "soils" seems wonderfully futile. Suppose instead our study is a "geographic interpretation of the Mixed Farming Interior of the United States." In order to interpret adequately the economic significance of this region as a great food producing area of the world we must recognize the bearing of such environmental influences as the length and warmth of the growing season, the amount and distribution of rainfall, the gently rolling plains possessing deep, fertile soil, etc. Such acquisition of fundamental

underlying natural influences has a meaning, a place in the everyday life of a world citizen.

My particular reason for placing greater emphasis upon regional geography is based upon the fact that the people of the earth live in certain environments and in their activities and customs react largely to the dictates of that environment. How different has been the development, the struggles for political entity of the Polish people—living in a plain country with no physical barriers between them and their strong and populous neighbors—in contrast to the Swiss people, protected naturally in their snug, mountain home.

GEOGRAPHIC REGIONS

The placing of still greater emphasis upon adequate interpretation of important regions of the world still does not solve the issue entirely. What type of regional subdivision is best suited to the need of the geographer? Obviously there is but one sensible reply—geographic regions.

We long have been indebted to the physiographers, the climatologists, the ecologists, the zoögeographers, and the ethnologists for physiographic provinces, climatic regions, vegetation zones, animal and ethnic realms. The regions distinguished by these workers are useful to the geographer, but they do not serve his purpose completely.

The scope of geographic regions and the criteria involved in their delineation can be suggested only in this paper, as they form a story of their own.[3] However, since the writer believes firmly that this type of regional subdivision is most essential to true geographic study, in passing we may present briefly a definition of geographic regions and the criteria to be used in distinguishing them.

Assuming at the outset that it is the function of the geographer to determine the significance of physical environment to man, geographic regions must be regional divisions of such nature, therefore, that this function may be performed most satisfactorily. We purpose to consider a geographic region as a unit thruout which the dominant life responses, present or potential, show a close adjustment to the dominant environmental influences.

In distinguishing the geographic regions of any continent it is necessary, therefore, (1) to determine the major human activities of the various sections, (2) to determine the dominant influences of the environment that make possible these significant human

[3] *Geographic Regions of South America*, a monograph published by McKnight & McKnight, Normal, Illinois, discusses this topic in more detail.

activities, (3) to set aside as geographic regions those areas that show within their boundaries essential uniformity in dominant physical conditions and consequently in dominant life responses.

Current Geography

Up to this point in the discussion the effort has been made to present in order of logical development some of the needed lines of emphasis in our normal school geography: beginning on the one hand with a working definition frequently applied and a definite knowledge of the true content of geography, extending into greater and more effective use of geographic interpretation on a regional basis, especially in terms of geographic regions.

In continuing we shall speak of several other somewhat more detached phases of geography work that in our opinion need greater emphasis in our normal school work. In introducing this topic, "Current Geography," may we quote "points 12 and 13" of Professor Barrows' article referred to previously: "Instruction in elementary geography has the following specific objects,—

(12) To cultivate or encourage an interest in present day affairs that will make for wider reading in leisure hours, during and after this study of geography.

(13) To inculcate the habit of applying geographic principles, whenever practicable, in the interpretation of current events."

Teachers long have talked a great deal about training for citizenship. It was a great comfort to me recently to hear an eminent speaker and educator remark that never had he understood quite what that meant! If it is the function of the school so to equip young people that they may understand more fully and be able to meet more adequately the many situations that confront men and women, then it seems to me that it is the business of the teacher of geography to get into step. Surely no study in the curriculum has greater opportunity for the presentation of vigorous, thought-provoking, live issues that confront men and women daily in their effort to make a living.

All of us know that teachers in the elementary schools (to say nothing of ourselves) are too prone to teach the same things taught last year and the year before, to assign the same pages in the same textbook, regardless of the great wealth of current geography that fills the world. I am convinced that one of the greatest, if not the greatest present tonic needed in our geography work is definite geographic interpretation of the world issues of today and tomorrow. The world fairly bulges today with its vital economic and political

problems, many of which largely grow out of physical environmental influences and man's ultimate adjustment to them.

If "Current Geography" is to be handled effectively by the coming elementary and high school teachers they must receive such training in the normal schools and colleges. It is not easy to teach this "living geography." It requires a rich geographical and historical background, wide daily reading of current publications, together with a broad minded attitude that permits careful balancing and judging of opposite points of view.

Far too few teachers handle this work with any appreciable degree of efficiency. Consider the usual method of teaching "Current Events." Data supplied me by two of my senior classes, and recent observation of a lesson in current events, convinces me fully that this vital current material should find a place in the regular work in geography, history and economics, rather than to be dragged into the opening exercises or tucked into some period where the teacher feels she may steal a little time because she "simply must get a lesson in current events taught sometime this week."

Just now one of my Senior classes is making a study of the "Geography of the Pacific Situation." This group of quite intelligent young people, who will join the ranks of junior high school teachers in September, admitted frankly at the outset their complete ignorance as to why the Pacific question should be an international problem of such moment as to occupy a position of so great importance at the Washington Conference. Their interest in discovering the relation between the Pacific environment and present economic and political problems in the Pacific, fills me anew with ardor for my present theme. As a part of our study of this topic, we are assembling a bibliography of source materials, a collection of newspaper and magazine clippings, maps, charts, grafs, pictures, etc. The hope is that these prospective teachers may realize the wealth of geographical material that lies outside their textbooks, and need never present the excuse of not knowing how to secure information on current geographical topics.

GEOGRAPHY IN CURRENT PUBLICATIONS

The need for an appreciation of the existence of and knowledge of the scope of geographical material contained in current publications is fulfilled to considerable degree in the work in "Current Geography." It seems to me, however, that we cannot be too zealous in our effort to introduce our students to the best publications that bring our geographical information thoroly up to date. It is so easy

just to turn to a few well-known books within easy reach on a book shelf, regardless of the date of publication of the books in question. Not long ago a student told with great complacency of conditions now existing in Mexico under the Diaz régime.

Again we must remember that this field of current publications is for the most part virgin soil to our students. When they realize it is possible to prepare a geography lesson from the *Boston Transcript*, the *Literary Digest*, or the *Review of Reviews*, then a start has been made. In addition to the many excellent magazines, pamphlets and newspapers that contain so much valuable geographical material, there are numerous state and government publications the best of which ought to be used widely by our students. No one ought to attempt to teach up-to-the-minute commercial geography without constant use of the weekly *Commerce Reports*, published by the Department of Commerce, to mention one publication in passing.

Another source of current material occurs in many of the recent books, not meant primarily to be text or reference books in geography, but that contain much interesting descriptive and political geography. Such books as the following: Stock: "The Cruise of the Dream Ship"; Treat: "Japan and the United States"; Greenbie: "The Pacific Triangle"; O'Brien: "Mystic Isles of the South Seas"; Powell: "Where the Strange Trails go Down," open up attractive avenues for leisure hours and usually furnish an incentive to wider reading and more careful research. Each member of my two senior classes is now reading one such recent book as just listed and will give a review of it before the class. In this way the entire class gets a glimpse of many new books.

Elementary school teachers as a group lag behind members of other professional groups in this matter of keeping up with worth-while recent books. (Perhaps it is due to the supply of test papers and themes to be read at night.) If we can encourage worth-while beginnings in the normal school, no doubt many of these young people will move on during their leisure time into more serious reading that will enrich materially their geographical background.

Travel Geography

Another aspect of geography that seems to need relatively more emphasis in the normal schools of New England than in similar schools of the Middle and Far West is "Travel Geography." The students, with the exception of the few ex-service men, apparently have had no travel experiences and there seems to be little "in the family." To them life in the coal mining Pittsburgh region, in the Corn Belt, in Southern California, in the Pacific Northwest is equally remote and strange.

In an earlier part of this discussion we emphasized a need for greater interest in and more complete understanding of world affairs. Just now my plea is for acquiring a speaking acquaintance with the whole of the United States. Can we not expose our students to the travel germ to the extent that they will plan to travel and see their own country and other lands as soon as finances permit? One of my senior classes last spring planned to use an imaginary legacy on a two month circle tour from Boston to the Pacific Coast. They secured valuable information concerning transportation lines, expenses, time tables, as well as learning how to reach most conveniently various points of interest. They discovered they could obtain free much worth-while source material from railroad and steamship companies, chambers of commerce, and from the government. The continental survey thus gained may furnish an incentive for broadening their own experience thru travel.

CLOSE CORRELATION WITH WORK IN TRAINING SCHOOL

During their period of teaching in the training school, our students usually have their first opportunity to test geographical ideals, concepts, and content acquired in the normal school classrooms. Unless there exists between the teachers of geography in the normal department and the training teachers in the various grades a common basis of geographic understanding, keen sympathy for their mutual difficulties, and close co-operation in supervising the adjustment of the student to his "teaching environment," just here may occur the first step in the "reversion to type" on the part of the prospective teachers. Nothing so disturbs the composure of the normal school instructor and convinces him that teaching geography is "just one long pilgrimage to the grave" as to observe a lesson taught perhaps by one of the prizes in last year's "crop of juniors." The visitor wonders how within the limits of one lesson the student teacher succeeds in violating so many fundamental principles of geographical interpretation. The visiting teacher surveys the fruits of his labors of the previous year!

Undoubtedly there ought to be careful supervision of the lesson planning and the classroom teaching of these beginning teachers so that their errors may be noted at once and remedies applied. It is a marked defect in our normal school system that the daily load of the training and normal school teachers is too heavy to permit this desired definite and constant supervision of the student teaching of these prospective teachers. If thru inadequate or unskilled supervision, students are permitted during their training period to fall

into formal methods, and to employ second rate standards in their geography teaching then the chances are that their later work in their own schoolrooms will show still greater degree of retrogression.

The following elements enter into the solution of the problem of this important period of the prospective teacher's career: (1) Close contact with and definite understanding of elementary school geography on the part of the normal school instructors. (2) Broad knowledge of geographical content and principles on the part of the training school teachers. (3) Definite recognition on the part of the administrative authorities that there must be time allotted on the day's program for conferences between the normal and training school teachers, for adequate observation of student teaching, and for frequent conferences between the student teachers and the supervisors.

Work Helpful to Teachers in the Field

Closely associated with the matter just discussed is the question of follow-up work with the teachers in the grades, junior and senior high schools. Judging from the points presented at the beginning of this paper as the basis for the need of this discussion, the contact between those engaged in the training of teachers and the teaching force must be closer. In many sections of the country the normal school forms a center for extension work in the neighboring towns and cities. The Iowa State Teachers' College at Cedar Falls does a notable piece of work among the teachers of that state. Since the normal schools of New England, with a few exceptions, serve densely peopled districts, it ought to be comparatively easy to carry on extension work, either in the adjacent towns or at the normal school, as well as to arrange visiting days at the normal school for nearby teachers.

We plan to hold at the Salem Normal School on April 21 and 22 a "Geographical Institute." We hope that many teachers of the vicinity will accept the invitation to visit regular recitations in geography in the normal and training school on Friday, and to hear the program of addresses and discussions on Saturday, as well as to examine the extensive exhibit of geography work prepared by our normal school students and the children in the grades. A portion of the exhibit will be devoted to a display of useful source materials—wall maps, atlases, text and reference books, state and government publications, magazines, etc. We hope that this event may be a means of extending the influence of the normal school geographical center and of creating or strengthening helpful relations with teachers of geography in the grades and high school.

THE SIGNIFICANCE OF SOME POPULATION CHANGES IN NEBRASKA SINCE 1880

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University of Nebraska

Man's response to geographic influences is well illustrated by the change in population of typical Nebraska counties since 1880 (Fig. 1). Altho the types of changes have been dissimilar within the three physiographic regions—the loess, the sandhills and the high plains—within each region a general similarity is shown.

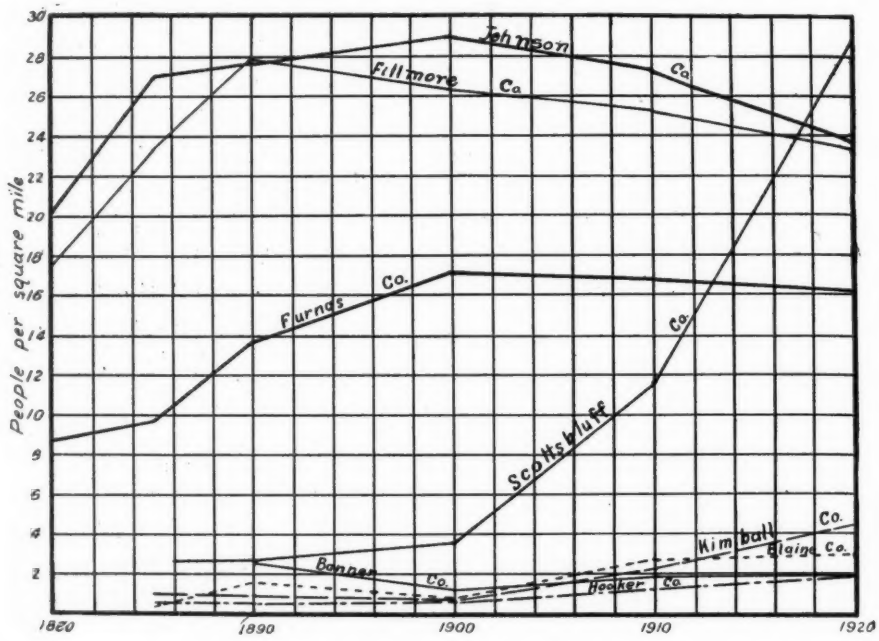

FIG. 1. Changes in Density of Population per Square Mile in Some Nebraska Counties

PHYSIOGRAPHIC REGIONS AND TYPES OF CHANGES IN EACH

Nebraska is comprised of three major physiographic regions, namely, the loess, the sandhills and the high plains. The loess region has an area of approximately 42,000 square miles and includes most of the eastern and southern parts of the state. The sandhill region, about 20,000 square miles, is largely northwest of the central part of Nebraska. Nearly all of the panhandle of western Nebraska and some of the southwestern part of the state is in the high plains region. This has an area of over 15,000 square miles. The altitude of Nebraska

varies from 850 feet in the southeast to more than 5,000 feet along the Wyoming boundary.

According to the last census the loess region has had a general increase in population since 1910 in the northeastern counties while the southern tiers of counties have had a more general decline. A general increase has been recorded for the sandhills and high plains, the former only slightly and the latter very greatly (Fig. 2).

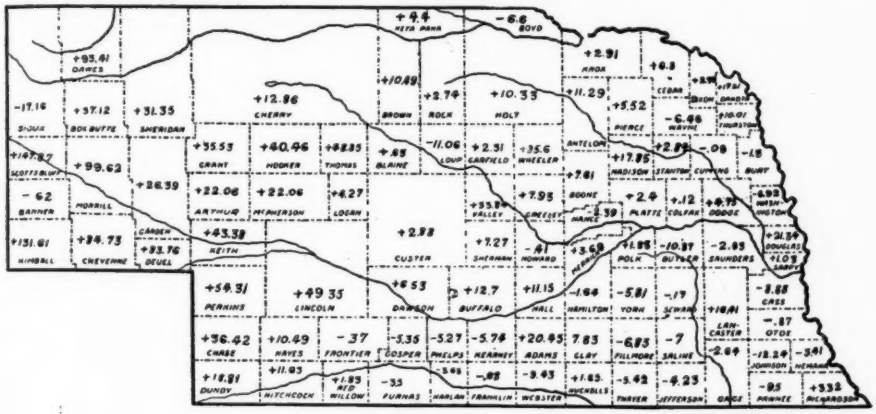

FIG. 2. Percentage of Population Changes, 1910 to 1920

The counties which are used in this paper illustrating the southern loess region are Johnson, Fillmore and Furnas; the sandhills, Hooker and Blaine; the high plains, Scottsbluff, Banner and Kimball.

The statistical data were obtained from the United States Census Reports, the Annual Reports of the Nebraska State Board of Agriculture and reports from the Bureau of Crop Estimates. Some of the earlier data is not as authoritative as the later reports for the methods of obtaining statistics were not then as accurate as those now prevailing.

The loess region counties, increased in population until 1890 and 1900 after which declines have been noted. The sandhill counties, Hooker and Blaine, show a decrease in 1900 after which a slow increase manifests itself. The largest variation is in the high plains counties, namely Scottsbluff, Kimball and Banner. Of the three the maximum increase has occurred in Scottsbluff County, the minimum in Banner while Kimball County has had a gradual tho moderate rise (Fig. 1).

CONDITIONS WHICH HAVE CAUSED VARIATIONS IN DENSITY OF POPULATION

Since 1910, according to the Census Report, the loess and sandhill counties have had a general decrease in the number of farms

while the high plains counties in general have increased. In the case of the high plains the only exceptions are Banner and Sioux Counties where a slight decrease has taken place (Fig. 3).

The lessened number of farms and the resultant decline in population in eastern Nebraska have been due to the use of more efficient machinery and to the development of diversified farming. The use

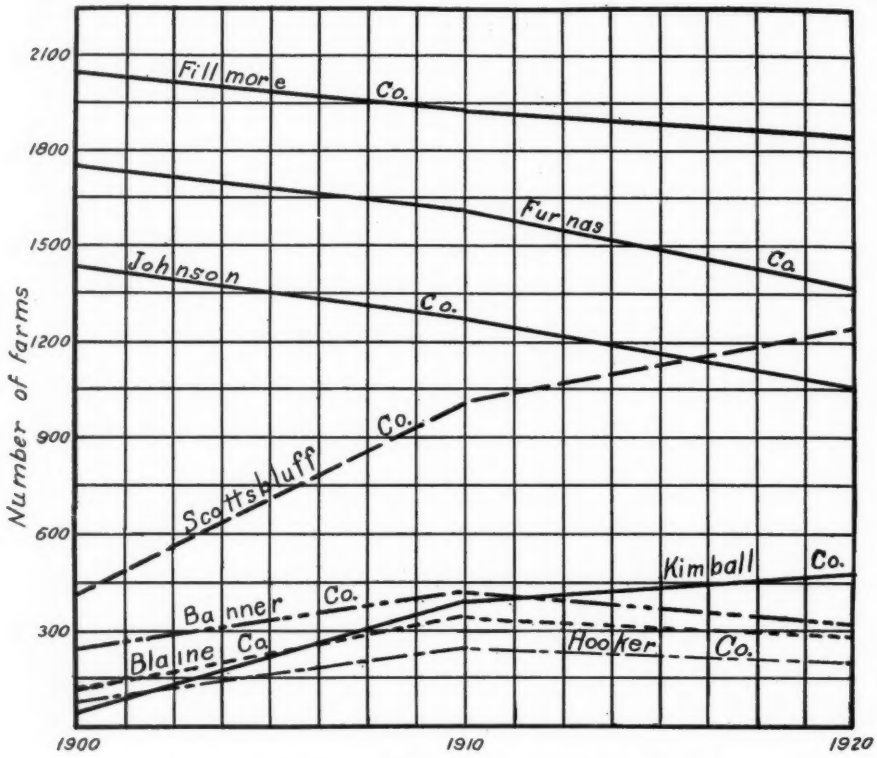

FIG. 3. Number of Farms in Some Nebraska Counties

of two-row cultivators, gang plows, larger binders and headers, mowers, haystackers and power driven machinery has made it possible for the farmers to care for larger areas with no more employment of human labor than was formerly required for a smaller unit.

Eastern Nebraska has a climate which is very favorable for corn and winter wheat. The annual rainfall is from twenty-eight to thirty-three inches. Relatively high summer temperatures prevail. The soils are fertile and easy to till. For these reasons corn was one of the first crops to be produced by the early settlers. Inasmuch as similar conditions were characteristic of the portions of Iowa and Illinois from which many of Nebraska's pioneers came, corn was the

first market crop to be produced by them and for many years it was the only cash crop grown by the homesteaders.

Wheat was introduced about 1863. However, the production of wheat was not a success for many years because the pioneers had difficulty in securing winter wheat which was drought-resistant and which could survive winter temperatures. The spring wheats in general did not prove successful competitors with corn. With the introduction of a drought-resistant winter wheat, nationally known as Turkey Red, a crop was found that proved well adapted to the climatic conditions and hence its spread as a supplementary crop to corn was very rapid.

The climatic conditions in southern Nebraska are favorable for winter wheat. There is generally sufficient rain in the growing season which is followed by less rainfall in the later part of the summer, thus affording a favorable time for the harvest. The high temperatures and hot winds of late summer frequently injure the corn crop, and inasmuch as the wheat is usually ripe before this period, it is often a more profitable and certain crop than corn, and hence has become an important competitor with it. The loess counties, Fillmore, Johnson and Furnas, show a general decrease in the corn acreage and an increase in the growth of wheat (Figs. 4 and 5).

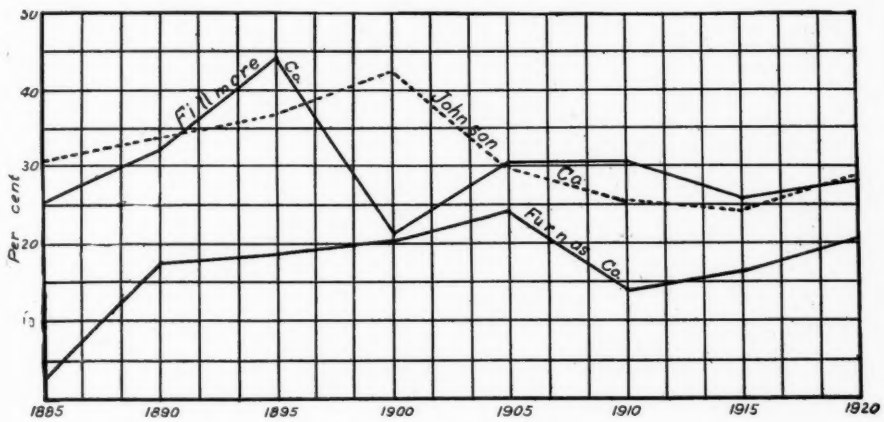

FIG. 4. Percentage of Total Area of Counties in Corn

Corn requires much labor from April until July after which practically no attention is needed until the corn is ready for husking. During the period from July to October, it is possible for the farmer to harvest and thresh the wheat, prepare the ground and plant the crop for the next season. Inasmuch as the handling of the wheat crop

fits into the slack period of labor for corn, the farmer has more steady employment thruout the growing season. As a result farms have not been abandoned but have either been enlarged or are operated with less labor.

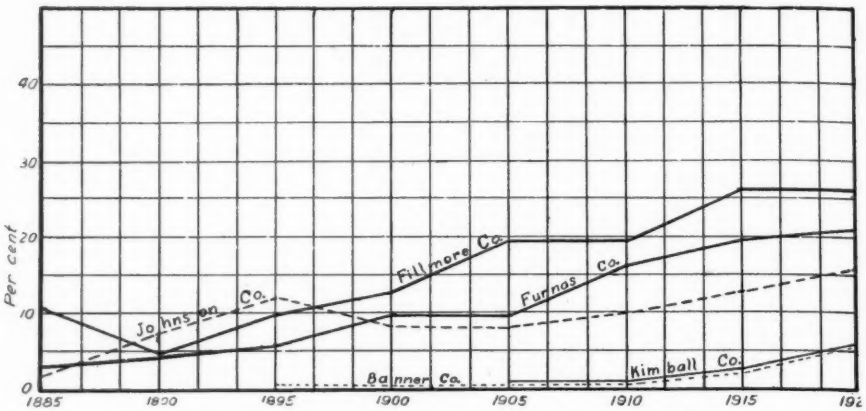

FIG. 5. Percentage of Total Area of Counties in Wheat

In the northeast counties, however, wheat has not made such rapid progress. The winter temperatures are somewhat lower thus slightly increasing the hazard of winterkilling. On the other hand the summer temperatures are also lower which cause less damage to corn thereby making it a more dependable crop. For these reasons wheat is not the economic competitor with corn that is farther south. Inasmuch as corn is the main crop in these counties and since it requires much labor, the population has generally increased (Fig. 2).

THE SANDHILL CHANGES IN POPULATION

The sandhill area is a typical grazing region. The rainfall varies from seventeen to twenty inches per annum. The winter temperatures are lower than in eastern Nebraska. The soils are loose, sandy and blow easily, and are not suitable for general farming but furnish good grazing for cattle. Hence with a low rainfall and rather poor soil conditions, this area is an extensive ranching country rather than a grain producing region.

The sandhill counties, Hooker and Blaine, show the greatest number of people per square mile in 1890, a decrease about 1900 and an increase in 1920 (Fig. 1). Prior to 1900 many people had gone into this region to settle on homesteads. The settlers left about 1900 as this was the period following several years of drought. In 1904 the Kinkaid Act was passed which gave settlers on certain parts of the

remaining public land in Nebraska homesteads of 640 acres by living upon them for five years and placing improvements of approximately $1,000 upon each. This brought many "Kinkaiders" into the sandhill district. The highest number of people in this region was probably about 1908 or 1909 as that was the time at which their homestead claims terminated. This highest point in population would not be shown as the Federal Census was taken later. Many of the "Kinkaiders" sold their homesteads at the termination of the residence requirement and left the region.

The increase in population in 1920 shows that the effect of the settlement by the "Kinkaiders" has been rather permanent. The ranchmen have developed better breeds of stock and they are giving more careful attention to the cattle. The ranches are large and fenced instead of being open range as they were in pioneer times. For these reasons more help is needed on the ranches now than was formerly the case.

Man's Response to Geographic Conditions in the High Plains

The most phenomenal changes have occurred in the high plains region. Banner and Kimball Counties had a higher population per square mile in 1890 than in 1900 and rose slowly until 1920. Scottsbluff County, however, has not at any time shown a decrease. It had a slow increase from 1890 to 1900 after which it gained rapidly (Fig. 1).

Man's response to geographic conditions is shown by the adaptation of crops to the climatic conditions. The mean annual rainfall in this region is thirteen to eighteen inches. The summer temperatures reach as high as 100° Fahrenheit and the winter temperatures are sometimes as low as 30° below zero. The growing season is about 130 days.

The pioneers had difficulty in making successful settlement because they were not accustomed to these climatic conditions. They planted the same kind of crops and tried to farm in the same manner as they had done in eastern Nebraska or in eastern states but those methods were not suitable to the high plains country. From 1893 to 1895 was a period of drought and after trying without success for several years to produce crops most of the settlers abandoned their homesteads and returned to the east.

Following 1900, however, a marked change in agricultural methods was begun. Irrigation was developed, drought-resistant crops were

planted on the uplands and different methods of tillage began to be practiced. The results of these various changes have caused the high plains to become one of the prosperous agricultural districts of the state instead of a ranch country.

IRRIGATION

Irrigation was first developed about 1887. It has been extended until now approximately 300,000 acres are irrigated annually in the North Platte valley of which Scottsbluff County has more than fifty per cent. Thus we have the low rainfall supplemented by water from irrigation, and as a result many acres of fertile land which were formerly used only for grazing have been made to produce crops.

With the extension of irrigation has come the introduction of sugar beets, potatoes, alfalfa and other crops which require intensive methods of cultivation.

The North Platte valley counties produced more than eighty-six per cent of all the sugar beets, about fifteen per cent of the beans and more than thirteen per cent of all the potatoes raised in Nebraska in 1920. Beside these much alfalfa, some grains and garden products were grown in the irrigated district. Many cattle and sheep are raised and fattened on alfalfa, beet pulp and beet tops.

The rapid increase in population in Scottsbluff County since 1910 is due largely to irrigation and the resultant development of the sugar beet industry, the production of potatoes, alfalfa and other crops which require much labor (Fig. 1). Scottsbluff County produced 48,006 acres of sugar beets or more than sixty-three per cent of the Nebraska crop for 1920. Nebraska ranked fifth in the production of sugar beets in the United States in 1920.

The climatic factors in Scottsbluff County are almost ideal for the growth of sugar beets. Beets require a long day with plenty of sunshine during the growing season. Abundant moisture is needed in the early growth of the plants to insure roots of good size, and this should be followed by a period of less rainfall, more sunshine and cool nights for the development and storage of sugar. The climatic conditions of the irrigated districts of western Nebraska are excellent as there is an abundance of sunshine during the year and the amount of water can be regulated to suit the needs of the plants.

The soils of the North Platte valley are fertile and well drained, hence are desirable lands for beet production.

Sugar beets require more intensive farming than is necessary for most other farm crops. The hand labor involved, for instance, is

estimated at ten times that for wheat. Many people are required for the blocking, thinning, hoeing, pulling, topping and piling of the beets. Many transient laborers are used for these processes. However, many of the beet workers become land owners and farmers in Scottsbluff County as well as in the other beet producing areas.

Another factor which aids in the increase in population is the almost yearly employment which the sugar industry furnishes. In the fall and winter the sugar factories employ many men, hence they are given work after the summer crops have been harvested. The campaigns often extend as late as February, thus there is only a short time until the spring work begins.

Market Facilities

The market facilities in Scottsbluff County are excellent. The beets are delivered directly to the factories either by wagon or by truck or by train from the beet dumps. The Burlington railroad passes thru the county and the Union Pacific has been extended as far as Lyman. Thus there are railroads by which produce and cattle can be shipped to Casper, Wyoming, or to eastern markets.

Scottsbluff County has more farms now than it had in 1910 (Fig. 3). This is due to the intensive type of agriculture which has become prevalent. The people have settled on smaller farms as beet production and crops raised under irrigation do not permit of the operation of large areas by few people.

Population Increase in Kimball County and Its Significance

Kimball County had a slow increase in population until 1900. From 1900 to 1920 a rapid development was made (Fig. 1). This county has changed from a region of large ranches to one of wheat farms. The introduction of drought-resistant wheat has made this a county of rapid advance without much irrigation.

The market facilities are excellent because the county is crossed at near the middle by the transcontinental line of the Union Pacific Railway. There is no point in the county farther than sixteen miles from the railroad, therefore the product from any place in the county can easily be shipped to eastern or western markets.

The farmers in Kimball County are also raising more corn than formerly. This has been made possible by developing a ninety day, drought-resistant corn, and by applying methods of cultivation suitable to the climatic conditions.

The different methods of tillage which have been practiced in the high plains area are those of summer fallowing, deeper plowing, leaving the corn stalks and grain stubbles on the ground to keep the soil from blowing, maintaining a mulch to retain the moisture and some crop rotation. The practice of these methods has made it possible for the present people to produce crops successfully in contrast with the unsuccessful attempts of the early settlers.

LACK OF MARKET FACILITIES AND ITS EFFECTS UPON THE DENSITY OF POPULATION IN BANNER COUNTY

Banner County had more people per square mile in 1890 than at any other time (Fig. 1). This was during the period of early settlement. However, this was followed by a period of crop failures and the population decreased in 1900. Since 1900 the number of people have increased slowly.

The chief control which has caused the slow development of Banner County is the lack of railroad facilities. It has no town on a railroad and for that reason farmers have difficulty in marketing their products. However, this county shows an increase in the acreage of wheat during the last ten years (Fig. 5). This signifies that the wheat prices have made it possible for the farmers to produce wheat profitably even tho market facilities are not excellent. Also the introduction of trucks has made it possible for the wheat growers to deliver their crops economically to more distant markets. However, since the development of general farming is dependent on good market conditions, Banner County will probably remain a grazing area because it is not near a railroad.

Banner County is one of but two high plains counties which shows a decrease in the number of farms (Fig. 3).

SUMMARY

Summarizing, the decline in population in southeastern Nebraska has been due to (1) the extension of wheat and the decrease of corn, which by giving a more uniform employment for the farmer makes it possible for him to care for larger acreages; (2) the use of more efficient machinery which has made it possible for the operator to handle larger farms with the same amount of labor as was formerly used for smaller areas. The increase in the sandhills is caused by (1) the relatively thick settlement of the "Kinkaiders," and (2) the extension of fenced ranches and the development of better stock and the necessity of taking better care of it. In the high plains the general

increase in population has been caused by (1) the development of irrigation which has led to the intensive type of agriculture, (2) the introduction of Turkey Red Winter wheat together with other drought-resistant crops such as alfalfa, corn, cane, and millet, which has made farms instead of ranches, and (3) the favorable market conditions which are afforded by good railroads making crop farming economically possible.

Finally, it may be said that we have now reached the point at which we appreciate how geographic conditions need to be understood, and why the industrial development of the state or of a region should be made a response to geographic influences.

SOME PHASES OF SECONDARY SCHOOL GEOGRAPHY IN NEW YORK STATE

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Secondary school geography has had many influences at work upon it in order to shape it to the needs of our students. By turns it has been industrialized, socialized, vitalized and humanized; and yet in spite of all of this it is rather startling to find what a small place it has in our high school curriculum. When an attempt is made to reduce geography in its various relations in the high school to a percentage basis many very striking facts present themselves.

Place of Geography in New York State High Schools

On October 10, 1921 a questionnaire was sent to the high schools of New York State having an enrollment of one thousand or more students. The purpose of this questionnaire was to gather informamation concerning the situation of secondary school geography. Thirty-one out of the thirty-eight questionnaires sent out were returned. The data gathered were tabulated and grouped and from these tabulations several conclusions or generalizations may be drawn.

Geography apparently has a place in the state secondary schools even tho it is a rather modest one, for only five per cent of the total enrollment of the schools reporting are in geography courses. Of the thirty-one reporting there were four schools in which no geography was taught; sixteen schools offered commercial geography; nineteen offered physical geography and nine offered both physical and commercial geography.

There seemed to be no definite agreement as to the percentage of pupils taking geography. In one school twenty-two per cent were in geography classes; in five schools the per cent was between ten and twenty, and there were five schools in which four per cent were enrolled. Apparently there seems to be no happy average as to actual numbers enrolled. Of the total number in geography there were sixteen per cent more enrolled in commercial geography than in physical geography in spite of the fact that physical geography is offered in three more schools than is commercial geography.

WHO DIRECTS GEOGRAPHY COURSES?

A lump of clay in the hands of a child becomes a mud pie, in the hands of a sculptor it becomes a work of art. The same principle applies in teaching. The interest of the pedagogue determines in no small degree the results which are produced with the course. It seems pertinent to ask therefore, by whom the geography work is directed. Of the twenty-five reporting method of direction, forty per cent were directed by the science department; twenty per cent by the commercial department; twenty per cent by a combination of the commercial and science departments. There were but four schools in which there was a separate geography department.

Twenty-five schools reported a total of fifty-two teachers. Ten of these had but one teacher and eight had two teachers. The largest number of teachers in any one school was six. In sixty-five per cent of the schools some of the geography is taught by teachers of other subjects. This is probably of as much significance as is the department which directs the course, for it is natural that the teacher's interests will have an effect upon the trend of the course.

THE PLACE PHYSICAL GEOGRAPHY OCCUPIES

In all of the schools physical geography was given as a year course and in one school, a half-year course for fourth year students was offered in addition. In the nineteen schools offering physical geography it was elective in all but one where a geography course was required of every student, but a choice could be made between commercial and physical geography. Physical geography was offered in seven schools for all beyond the first year. Five schools offered it only in the third and fourth years and there were four schools in which it was an elective in only the fourth year. Five textbooks were mentioned as being used for physical geography: Arey, Bryant, Clendenin, and Morrey, Physiography; Salisbury, Barrows, and Tower, Modern Geography; Dryer, High School Geography; Hopkins, Physical

Geography, and Tarr, New Physical Geography. In more than half of the schools Arey, Bryant, Clendenin, and Morrey was the one indicated. Tarr was second in use on the list.

The Place Commercial Geography Occupies

Commercial Geography was reported under two other titles—industrial and economic geography. Of the sixteen schools reporting courses, nine required geography in the commercial course and offered it as elective to others. There seemed to be a marked preference for the half-year commercial geography, for more than two-thirds of those reporting indicated this. Quite often the length of course offered is determined by the time left over after the other subjects are provided for. There seemed to be no agreement as to the year the course should be offered for there were as many offering it to the first year students as there were to second and to third year students. In one school it was offered as a subject for seniors. Only four commercial geography textbooks were mentioned, Smith, Commerce and Industry; Brigham, Commercial Geography; Robinson, Commercial Geography; and Keller and Bishop, Commercial and Industrial Geography. Of these Smith's text was the most popular for eleven of the sixteen reporting on the text question used it.

The Changing Relation of Physical and Commercial Geography

It is quite evident that of the two geography courses offered, commercial geography is the one of greater relative importance at the present time. In order to get some clue as to changes in the relative position of physical and commercial geography during the past few years a study was made of the records of West High School, Rochester, New York. The school opened in 1905 and it was not until 1911 that the first course in physical geography was offered. The percentage of the entire school taking the first course was less than one per cent. The following year a class in commercial geography was organized beinging the percentage up to three per cent. As the number enrolled in the school increased there has of course been an increase in the number enrolled in geography. The percentage of enrollment in geography has increased to nine per cent for the current term, which is gratifying. On further analysis it was found that while there had been an increase of perhaps one-half per cent in physical geography the biggest gain has been made in commercial geography, due largely to the increased enrollment in the commercial course. According to "A Survey of Commercial Education in the Public High Schools in the United States" by Leverett S. Lyon, it has been found that the increase in

numbers of students in commercial courses has been out of all proportion to the increase in the number of students in high schools, the increase being as 12,000 per cent to 423 per cent from 1893–1915. Commercial Geography has profited by this for it is offered in eighty-seven per cent of the schools that reported in the survey and required in seventy-nine per cent of these for all students in the commercial courses.

THE INSIGNIFICANT PLACE OF GEOGRAPHY

In comparison with other subjects in the high school curriculum, the enrollment in geography is noticeably low. For the current semester in West High School more than half the enrollment is in Latin; sixty-three per cent in mathematics, thirty-nine per cent in modern languages. Compare these percentages with the nine per cent enrollment in geography. A very small percentage of our high school students ever reach college and yet we allow college requirements rather than the needs of actual life to be the determining factor in the pupil's high school course.

New subjects are constantly demanding a place in an already crowded high school curriculum and geography has been reduced in many instances to find a time and place for them. In some school systems geography ends with the sixth grade. Other systems have contracted the general science fever in the most violent form. This work, beginning with the seventh grade has perhaps been one of the most recent substitutes for our geography. We must be able to meet these demands and to show in what ways geography is worthy of not only recognition but greater recognition. "If we are wise we shall examine our course of study carefully, throw out non-essentials and elevate the science of geography to the proud place it deserves in the general education of the future American citizen."

THE PAN-AMERICAN EXPOSITION A GEOGRAPHY PROJECT[1]

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VITALIZING THE TEACHING OF GEOGRAPHY

Teachers are usually agreed that geography is the hated science and most of them are one in the opinion that it is the most poorly taught. G. Stanley Hall calls it "the sick man of the curriculum"

[1] Revision of an address delivered before The Organization of the Teachers of Colored Children of the State of New Jersey at Atlantic City, May 14, 1921.

while Oliver Lodge asserts that "as a science that might be full of life but which may be taught as a string of the baldest facts imaginable geography is preëminent." Since, however, it is so big a subject, presenting such great utilitarian and cultural values, the masses of humanity cannot afford to neglect it nor attempt to study it without sympathy. Hence, the new note in teaching, vitalizing the curriculum meets a pressing need here for no subject is more easily adapted to project teaching than is geography and none, when properly vitalized, pays more royally for the time and energy spent upon it.

Starting the Project

Recently I taught two seventh grade classes, different in some respects, but having in common the usual aversion to geography. After a few preliminary steps we began the first assignment of the term which, in our schools, is always South America; but since the study answered no particular needs nor desires on the part of the pupils the work of each day proved dull and uninteresting to most of them. Finally, as an experiment, a question lesson was assigned and when it became clear to the children that they were to spend an hour asking questions, the answers to which they did not know, and which even the teacher in charge might not be able to answer, they immediately evidenced interest in their work. Next day there was much enthusiasm with the assembling of each class. One boy eagerly announced that he wished to know why his textbook stated that the people of South America differed from those of North America in speech, work, and manner of living. Despite the fact that every one else wanted the answer to that question, it was not long before several other good ones had been given. After eliminating all the narrow questions, leaving only those that it would require several weeks to answer, each class chose the best one that had been submitted, with the result that our South American work centered around these two:

Why do the people of South America differ from those of North America in speech, work and manner of living?

What changes may be made in South America in the future and how may those changes affect the rest of the world?

Answering the Questions

The problems chosen led to a survey of the physical features of South America, which in turn, created an interest in the countries, the study of which began with a reading lesson on Brazil. One never knows whither a project will lead but if held in check it is sure to lead to something worth-while so at the end of the chapter on Brazil it was

gratifying to have several disappointed children look up with the query "Well, is that all?" Inquiries as to what else they wanted to know brought forth an animated response and soon there were on the board about thirty questions covering every geographical topic on Brazil. There was a clamor for special assignments, each pupil believing that he could best answer his own question. Thus the project began to really function.

For days the geography classes were the personification of industry. Everything that could aid in the study of Brazil was brought into the classroom and the subsequent reports were indicative of the thoroness with which the children were attacking their problems. So interested did they become in the topics that they asked to keep the same ones thruout the course. As there seemed to be no objection to such a plan the pupils who reported on livestock, minerals, etc., of Brazil considered the same under the succeeding countries studied.

Reading Correlation

Fifteen to twenty library books and Allen's South American Reader to supplement the textbook did not afford sufficient material to satisfy the demands of the wide-awake children who now met me each day. The boy interested in livestock asked if it might not be possible to receive from one of the meat-packing firms of the United States additional information concerning the livestock industry of South America. An affirmative answer encouraged him to write and in reply he received the desired help. Similar letters sent elsewhere by other children soon brought booklets and exhibits on coffee, rubber and cocoa.

The increasing desire for knowledge caused a demand for further sources of material and the Pan-American Union was recommended. The value of this bureau cannot be over-estimated for we were always sure of receiving, within forty-eight hours, a satisfactory reply to any request sent to them. Postcards, time tables, and even the minute details of a South American trip followed each other in such regular and rapid succession that a library was soon accumulated. In the grade there was a boy who usually came into his class and went to sleep but his first package of literature from the Pan-American Union woke him up and he became one of the leaders of his class.

Thru the reading of magazines and newspapers the children broadened their minds and each was anxious to tell in class anything that he believed to be new to the others. The fact that it was often necessary to shut out someone who had something to tell gave rise to the Geo-

graphical Club which held its meetings once a month in a regular geography period. Copies of the *South American* and the *National Geographic Magazine* were purchased out of the treasury and one boy supplied *World's Work*. Later a picture hour and a story hour were inaugurated in order that as wide use as possible might be made of the valuable literature sent in by various firms.

How the Exposition Idea Arose

One of the most interesting things about schoolroom projects is that they do not stand still; they grow from day to day one out of another just as from the heart of a seed come leaves, stem, branches, bud, bloom and seed again. So from the main question chosen by each group at the beginning of the term came other questions, other projects. When, at last, it was time to leave South America the announcement was met with stern disapproval. There were other problems to be solved. "Why not just stay" the children asked, "and learn all about this one continent?" But courses of study must be considered so we were compelled to go on. A happy suggestion was made, however, that since the trip to South America had given us so much pleasure we ought to share it with others. "Why not have a South American show?" Several other similar ideas were presented and, since, in every case, the show element and the American side were uppermost, I supplied the name Pan-American Exposition, had the children find out its meaning and the idea was unanimously adopted. We decided to turn attention now to our own America and end the year's work with an exposition setting forth the industries, products and the progress of all the American Republics.

Letter-writing began in real earnest for the children were eager to get as much first hand information as possible. Excellent responses came from every part of the country. It was as if we had touched a magic wire that brought us into immediate contact with the orange groves of California, the forests of Maine, the cotton fields of Texas, the corn lands of Iowa, the sheep ranges of Idaho, the wheat fields of Oregon. When samples of products or exhibits were not available there came special articles or personal letters giving detailed information as to source of materials, methods of production and physical environment. From these letters, many of which took us into the remotest regions of the earth, we learned that the great industrial concerns of this country are for the most part splendid educational institutions whose leaders are highly desirous of enlightening the American public.

Attention was fastened more firmly upon the facts in the letters than upon the exhibits for all were interested in this geography that did not come out of a textbook. In order to find reliable advertisements a good magazine was needed so a subscription was sent for the *Literary Digest* whose pages fairly teem with living geography.

Towards the end of the term the material that had been collected was taken to a spare room and set up in booths representing the various sections of the United States and of Latin America. For several days our class periods were spent there and then one night, with many of the leading citizens of the town in attendance, the Exposition opened. What proud boys and girls escorted visitors thru the room that night and for several days thereafter explaining the geographical side of the display. It was not only a triumphant achievement for our seventh grade boys and girls but it brought the people of the community into closer contact with the school and did much to emphasize the new trend of education.

Meeting Curriculum Requirements

Does such a project meet the requirements of the course of study? Does it allow for adequate drill? A well-directed project engenders other projects. Every day during this course children asked questions that were made the basis of future study and the knowledge that their inquiries might be so used kept them in a questioning attitude. Hence, it was easy for us to complete the work assigned. The study of other parts of the world was the development of projects that grew out of pupil interest. They received so many letters, booklets and pictures referring to Ceylon that one day an exasperated child cried out, "Tea from Ceylon, rubber from Ceylon! Where in the world is Ceylon? "The answer was, "Find out." They did. Interest in Persia was awakened thru the information that a certain well-known product is perfumed with flowers from Persia, and for a similar reason the west coast of Africa was studied.

As to drill, that should be a well-planned part of every project. To bring the products up from the stock-room and arrange them in their proper places was drill that each child seemed to enjoy; to go into the exhibit room and spend fifteen or twenty minutes each day was welcome drill; to know that one might be sent for and asked to escort the Superintendent of Schools or some other dignitary thru the Exposition called for drill on one's own account, and, finally, to re-read their one hundred fifty letters, with particular attention to the headings, went a long way towards preparing the pupils for the problem

they are always sure to encounter in the New Jersey State Examinations. Map work and lantern slide lectures were also included under the head of drill and neither was coldly received.

Thruout the course stress was laid on place geography but from the relational standpoint, tracing man's work and habits back to certain physical features and noting the likenesses and contrasts between different parts of the world. Every attempt was made to avoid abstract teaching which seems so largely responsible for the aversion to geography. It is not winds that need be taught to children of tender years but that winds are partly responsible for the differences in the water tax between some of our eastern and far western states. Few children are interested in latitude—just latitude—but it makes a vast difference if we tell them that the difference between the latitude of Florida and that of Maine in February equals baseball in one state and snowball in the other. Then let them answer the "why?" question that they will ask.

Summary

From the questions asked in the beginning of the course there have arisen these and other new queries and problems:

1. What part have physical features played in the development of South America?
2. What have been the great barriers to its progress?
3. Thru what supplementary channels can we increase our geographical knowledge?
4. How may we benefit others by our study?
5. What do we want to know about Brazil? What of other countries?
6. Note comparisons and contrasts between Latin and Anglo-America.
7. What are some good magazines for schoolroom use?
8. Into what sections is the United States naturally divided?
9. Note our dependence upon remote parts of the world.
10. What worth-while things can pupils do without teacher-supervision?
11. Study life and customs of the foreign places mentioned in the letters that we have received.

Value of Such Projects

A project of this character recommends itself for cooperative study. It was utterly impossible to make complete use of all the material that came to us. The literature received would supply a reading class

for a year; several companies are expert in the teaching of practical hygiene while a great deal of work in English and spelling could be done thru the sending and the receipt of such letters.

The pupils have come into closer contact with the big business men of the country than some of their fathers ever will. They have been schooled in initiative and the ethics of business correspondence has come thru actual experience growing out of their own interest. A letter received by a rather ambitious girl from a man in South America gave us the feeling that after all miles of ocean and mountain and waste count for but little where man has felt the refining touch of civilization.

Imaginary trips and lantern slide lessons have awakened the imaginations of the children giving them a real interest in geography which they have discovered is not a book but the life of the world about them. We have discovered that man is influenced by the history, location, surface, size, climate and soil of the place in which he lives and, consequently, that the differences noted between the peoples of the earth are not voluntary idiosyncracies but imprints of the invincible forces of Nature.

A résumé of the foreign products necessary to the social and industrial life of our country has taught us that the humblest people of the earth have something to give to the strongest and that if it were not for the commercial relations built up by civilization there would doubtless be six dark continents. We have come to regard South America as a land of opportunity, rich in natural resources, the development of which has been retarded by almost insurmountable barriers to progress. These latter, however, may be swept aside and a new American influence exerted which shall be reflected in all parts of the world. From the course we emerge with broader visions, wider knowledge, keener imaginations, a wholesome opinion of America, and a deeper love for Nature, thru whom we have heard the voice of the eternal God.

BIBLIOGRAPHY

Brigham and McFarlane: Essentials of Geography, Book II.
Allen: South America.
Allen: Industrial Study of the United States.
Allen: The New Europe.
Keller and Bishop: Commercial and Industrial Geography.
Quest: Supervised Study.
Kilpatrick: The Project Method.
Redway: The New Basis of Geography.
South America.

The World's Work.
Asia.
Scribner's
National Geographic Magazine.
Teacher's College Record.
Pan-American Bulletin.
The *Journal of Geography.*
The *Mentor.*
The *Literary Digest.*
Exhibits from the public library.
Numerous letters and exhibits from business firms.

A PROJECT—THE MISSISSIPPI RIVER

RUTH CROCKER HOFFMAN
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Statement. For years commerce on the Mississippi River and its tributaries has been relatively insignificant in amount.

Problem. Can the Mississippi River be made to serve as a paying waterway?

Teacher's Approach. Story method used to bring aim before class.

OUTLINE OF STORY

1. Chicago paper boy, a close observer of city's business life and especially of life at water front
2. His removal to a farm six miles from Mississippi River in Illinois
3. Difficulties encountered by father and son in transporting vegetable and animal products to a railroad shipping point
4. Boys wish to use river
5. Obstacles to his plan placed before him by a thinking neighboring farmer (using here statement of aim)
6. Boy's several plans for his government to overcome the obstacles

QUESTIONNAIRE USED TO DEVELOP PROBLEM BY INDUCTIVE METHOD

1. What makes a river valuable as a waterway?
2. Does the kind of country thru which it flows have any effect upon its usefulness as a waterway?
3. How do the products of the country affect its usefulness? What kinds of products could more easily be sent by water?
4. Does the body of water into which it empties affect its usefulness? In what ways?

5. How deep should a river be to make a good commercial waterway? Should its depth vary greatly?

6. What might cause a river to be closed to traffic for a time?

7. Is the Mississippi River a good commercial waterway in some respects?

8. Where does it have its beginnings?

9. Does it pass thru the country as a quiet unobtrusive traveler?

10. What are the products of its hinterland?

11. Could it effectually carry these products to market?

12. Would all of these products be sent to the same distributing center?

13. Is there a difference in time necessary for marketing different farm products?

14. Would the Mississippi River fulfill the following requirements?

1) Is its channel of a uniform and sufficient depth?
2) Does it meander too much?
3) Is it ever closed to traffic?
4) Are its banks durable enough to support lasting docks?
5) Is its terminal sea-port well equipped with warehouses, granaries, loading machinery, etc.?

Assignments

What can be done to make the Mississippi a paying waterway?

1. Past history of river
   1) Its discovery by white man
   2) Its early use by explorers, trappers, pioneers
   3) Its floods
2. Traffic history of river
3. Decline of river traffic. Its causes
4. Products of Mississippi River's hinterland
   1) Perishable products needing minimum transshipping
   2) Animal products needing minimum transshipping
   3) Products of bulk not needing haste in shipment
5. What is being done now for the permanent improvement of the Mississippi River as an inland waterway?

Summary of Data After Reports are Given

1. Course of river—too indirect.
2. Water depth varies from time to time; from place to place; thru traffic demands minimum transshipping
3. Many parts of channel shallow, crooked, shifting
4. Closed for part of year—ice—floods

5. Transportation—slow

6. Methods of loading—dockage facilities not well developed

7. Improvement necessary for transporting coal, stone, lumber, and grain

8. Traffic from Mississippi's hinterland moved by rail

9. Railroads keep back river ports and underbid river traffic

10. Mississippi River influences railroad rates to the south on too small a scale.

11. Distance between terminal points shorter by rail

12. Lack of development of river equipment causes unwillingness to invest capital because of:

1) Ice—swiftness of current—floods

2) Variations in depth of water

3) Fixed wharves impossible

4) Floating docks inefficient

5) Steep banks increase cost of loading and unloading

6) Transshipment from lighter to heavier craft not cheap enough

7) Private ownership of river craft not responsible enough to insure careful shipment of goods. No "come-back" for shippers in case of accident or other failure to deliver goods

13. New Orleans awake to its failure as a good terminal is busy solving the following problems:

1) Open and safe passage thru one of the many distributaries of the Mississippi River

2) To connect with the Gulf of Mexico by a waterway thru Lake Ponchartrain.

3) Canal now under course of construction

1) Dockage facilities of latest type in quiet waters within the city

2) Four lift bridges across the canal

3) A lock under construction 640 feet long, 75 feet wide, to effect a junction with river

Conclusion

The teacher should have succeeded in so awakening the pupils' interest in the subject that the problem-project will mean continued research and reading thruout subsequent years of their lives.

Proof has been found that work is now underway to make the Mississippi River a paying waterway.

BIBLIOGRAPHY

1. Salisbury: Physiography, p. 132.
2. Dixon: A traffic history of the Mississippi River System (1909), pp. 37–60.
3. Tarr and Martin: College Physiography, pp. 108–109, 154, 155–159.
4. Brunhes: Human Geography, p. 212.
5. Corthell: The Mississippi Jetties.
6. Springer: What New Orleans is Doing. *Illustrated Scientific American*, Vol. 184, (Jan. 29, 1921) p. 14.
7. Salisbury, Barrows and Tower: Elements of Geography, pp. 120–211, 266, 338, 342–346, 364–365, 374–375, 425–426.
8. Frye and Atwood: Advanced Geography, pp. 19, 42, 296. Maps, 25, K5, 2–3,H4.
9. Huntington and Cushing: Principles of Human Geography, pp. 138, 139.
10. World Almanac (1921).
11. Current Periodicals.
12. Reports of National Waterways Commission, 1921. Washington, D. C. Government Printing Office.

THE APPROACH TO SHANGHAI

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Shanghai is China's chief port. Its location is such that it is the first place in China visited by the traveller, and for many a tourist it furnishes the sum total of his ideas of China.

As one approaches the coast of China on one of the trans-Pacific steamers his fellow passenger who has been there before will be heard to exclaim "land," and he will with difficulty agree that perhaps the experienced traveller is right; he had himself thought it a low-lying cloud on the horizon, or a dark streak of muddy water. The south bank of the Yangtze at this point is so low and flat that it is scarcely to be recognized on the horizon; the river is so wide that its north bank cannot be seen at all. Ultimately the south bank is seen as a level green plain and one thinks he sees a similar bank on his right, but it is only one of the islands that the silt has made and which furnishes excellent farm land for rice.

By this time the steamer begins to turn to the left and the passenger realizes he is in the midst of an anchorage: ocean liners and warships ride at anchor, noisy dredges and a stone breakwater testify to man's attempt to keep a good harbor. This is the mouth of the Whangpoo River, and the steamer (we are assuming it is one which can go up to Shanghai) is leaving the broad and yellow Yangtze. On the right a thriving little town is to be seen—a town such as one would expect at an outer anchorage, with its forts and military plants, its custom

house and commercial warehouses, its "hotels" and small supply stores, and the terminus of the first railway built in China.

As the steamer moves slowly up the river the passenger is struck with the simple beauty of the low-lying level green river banks.

Fig. 1. Fishing on the banks of the Whangpoo

Here and there a fisherman has a net suspended at its four corners from a bamboo frame-work which forms one arm of a bent lever, and at intervals he steps on the weight of the other arm and lifts his net from the water, removing his catch from the net with a long bamboo dipper (Fig. 1). Here and there, dotting the river surface, are numerous

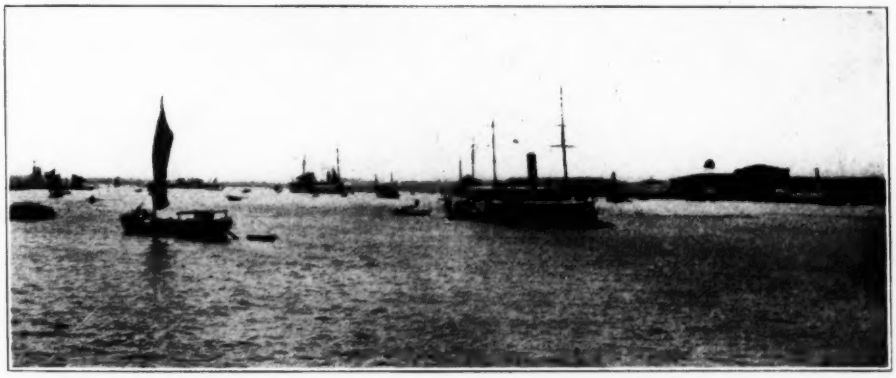

Fig. 2. In the Whangpoo River

small boats, intended for two or three passengers, and propelled by a man in the stern pulling with the fish-like stroke of the oar, a method which seems to develop surprising speed.

FIG. 3. In Shanghai harbor. Vessels at anchor in midstream

FIG. 4. Numerous small crafts at Shanghai

But these little boats are not the only craft in the river. Here the steamer passes a flotilla of the ancient style Chinese junks—those ungraceful ships with three big sails and eyes on either side of the prow—all of which makes a graceful picture as the flotilla floats Shanghaiward with its cargo of fish from the ocean, wooden poles from Fukien, or rice or tea from the upper Yangtze. Now one meets a coast steamer moving down stream destined for Tientsin or Hongkong, a side-wheeler passenger steamer in a bright coat of canary yellow

bound for Hankow and the intermediate Yangtze river ports. The nearer the steamer comes to Shanghai—and it will be an hour or two after entering the Whangpoo before the steamer will reach her dock—the greater will be the amount of shipping in the river (Fig. 2): British, Japanese, Italian, Norwegian, Dutch, French and American freighters. To an American who has visited Shanghai at intervals during the past

Fig. 5. Along docks at Shanghai

twelve years the recent increase in the number of ships flying the Stars and Stripes is strikingly significant. Another effect of the war on the shipping is the plainness with which, in a large number of instances, the vessel's name is printed on her side.

Fig. 6. Along the the "Bund" at Shanghai

Before the steamer has covered quite half the distance from Woosung to Shanghai the experienced passenger will point out a group of buildings on the right bank as the Shanghai College, a growing institution, beautifully located on the river front with room to grow. Then the lower warehouses of the Asiatic Petroleum and Standard Oil Companies are passed, later the plant of the China Export & Import Lumber Co., the Shanghai Waterworks, cotton spinning mills, warehouses in increasing numbers: and thru openings between, one catches hasty views of passing trolley cars and realizes that he is nearing the city. The rapidly increasing number of freight and passenger ships at the docks, war vessels at anchor in midstream, and numerous tugs and small craft playing at hide-and-seek between the larger vessels, all verify the realization that Shanghai is reached (Figs. 3, 4, 5).

The steamer slips into her dock, and before he rushes to his cabin to collect the last of his personal effects, the passenger catches a glimpse of the river front a little farther up stream; the American flag among those of various consulates; a steel bridge carrying its heavy traffic; the "Public Gardens" with their beautiful flowers and trees on the water front; the "Bund" (Fig. 6) which is the riverside street with its oriental style buildings of thirty or forty years ago, giving place today to six and eight story modern office buildings; the handsome customs building with its clock tower from which the time is chimed every quarter

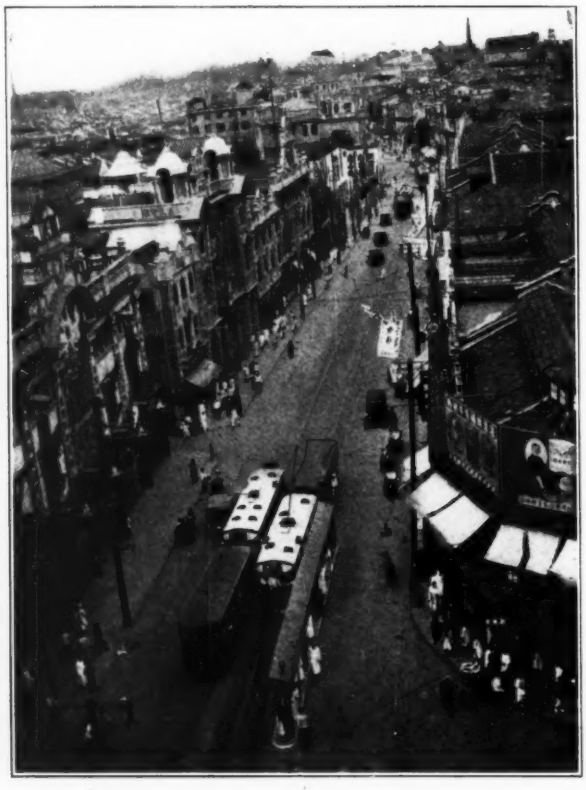

FIG. 7. Trolley cars, speeding automobiles and dashing "rickshas" on Nanking Road

hour; the Zikawei Observatory signal tower which warns seamen of the weather conditions outside and gives them the time each noon; trolley cars, rushing horse carriages, speeding autos, dashing "rickshas," slow-moving wheel barrows, coolies with loads over their shoulders. Men and women of all races and costumes pass before the vision, a fascinating mixture of East and West (Fig. 7). The mob yelling on the dock alongside recalls the passenger from his contemplation of the scene and he realizes he has reached Shanghai.

NATIONAL COUNCIL MEETING

The next annual meeting of the National Council of Geography Teachers will be held the afternoon and evening of December 26 and the forenoon of December 27, 1922, at the University of Michigan. A program is now being prepared by President R D Calkins, details of which will be announced later. The Association of American Geographers will hold their annual meeting at the same place immediately following the National Council meeting. Make your plans now to attend these meetings! Come and get acquainted with your fellow workers!

A CORRECTION

To the Editor of the Journal of Geography:

In his very able review of my "Battlefields of the World War" published in your April issue, Dr. Kirk Bryan states that American military men will find in my book no reference to the work of the Geologic Staff of the American Expeditionary Force under Lieut. Colonel Alfred H. Brooks, and only a casual footnote reference to his report on "The Use of Geology on the Western Front." As some of your readers who have not the book before them might interpret this to imply a lack of respect on my part for the valuable work done by Colonel Brooks and his associates, I hope you will do me the courtesy to print this communication, including the appended quotations from the book. It is only fair to Dr. Bryan to add that the pages of "Special Acknowledgements," inserted just before the book was issued, were not included in a few preliminary copies privately distributed some weeks before publication was completed. It is evident that Dr. Bryan had in hand one of these preliminary copies.[1]

Quotation from the section headed "Special Acknowledgments," in the Introduction:

"In describing the Battlefields of Verdun and Lorraine the author has omitted discussion of the excellent work of the geologists of the American Expeditionary Forces, in part because a special report on that work by the Chief Geologist himself was in preparation while the present text was being written. Lest this omission be construed as indicating failure to appreciate the high value of the work done by the Geologic Section of the American Expeditionary Forces, the author desires to emphasize in this special manner the achievements of a geological service which at the end of the war ranked first among the Allied Armies. It is a pleasure to acknowledge at the same time the author's indebtedness

[1] The copy supplied by the publisher was marked "incomplete" and we were informed that it was "incomplete" only in respect to maps. EDITOR.

to Lieut. Colonel Alfred H. Brooks, Chief Geologist of the American Expeditionary Forces, for important suggestions as to the uses of geology in military operations and for his many courtesies in providing reports and maps of the highest value: and to refer the reader to his treatise on "The Use of Geology on the Western Front" (U. S. Geological Survey Professional Paper 128, 83-124, 1920), copy of which reached the author after his manuscript had gone to press, and too late for more than brief footnote reference. A history of the development of military geology and a useful bibliography of the subject are included in Colonel Brooks' treatise, while the employment of geology in military mining and other engineering problems is further discussed by him in several issues of the *Engineering and Mining Journal* for 1920, and in Occasional Paper 62, of the Engineer School, United States Army."

From the following page:

. . . . "to General Bourgeois and members of his staff on the French Service Géographique, Lieutenant-Colonel David and Captain King at British General Headquarters, Lieutenant-Colonel Brooks and his associates at American General Headquarters, General Greindl at Belgian General Headquarters, Colonel De Ambrosis at Italian General Headquarters, and many others, he (the author) is indebted for discussions of principles and explanations of detail which in many cases proved of vital importance in his studies."

From the footnote on page 120:

"For an excellent discussion of the value of geological studies to military operations, see A. H. Brooks: "The Use of Geology on the Western Front, U. S. Geol. Survey Professional Paper 128, pp. 83-124, 1920."

Respectfully yours,
DOUGLAS JOHNSON

GEOGRAPHICAL PUBLICATIONS

R. N. R. Brown, O. J. R. Howarth and J. MacFarlane. **The Scope of School Geography.** 158 pp. Oxford University Press, N. Y. 1922.

"The Scope of School Geography" by Brown, Howarth and McFarlane is a stimulating discussion of the nature of material which should comprise secondary school geography. As some of the guiding principles in the selection of material, these authors make the contentions: (1) that the explanation of physical processes should be given only in connection with regional geography, and only when it tends to throw light upon the relation of man to his environment; (2) that the study of climate is integrally a part of geography so far as it "is concerned with the distribution and characteristics of various types of climate" and so far as it shows how climate "affects man in his geographical aspects," but that teaching the causes to which any particular type of climate is due is "a debatable function of geography"; (3) that *vegetation* is of great importance in the study of geography, but that *flora* has, in most of its aspects, no geographical bearing and that the distribution of species that have no immediate relations with man is not a part of geography; (4) that only in those regions where man is directly dependent on the native fauna are the characteristics of the fauna legitimately included as part of geography; (5) that, in the field of economic geography, material should be so chosen and presented as to make clear the facts that the influence of geographic factors is not constant and that geographic factors do not "alone exercise a control upon the economic activities of man"; (6) that there is a clear distinction between the geography of the present and the geography of the past and that a general geography course should concern itself with historical geography only to the degree that it must do so in order to make clear the geography of the present; and (7) that the danger of neglecting man in his national aspect, in an extreme application of the regional method, should be avoided.

A brief discussion of maps, map-reading, and map making precedes the summary, which re-emphasizes the idea of geography as the study of the various factors—physical and biological—which together make up man's environment, a study unified by viewing these factors from the standpoint of the influence which they exercise upon human activities and civilization.

The book helps to make clear the contribution which geography can make to secondary education, and the place which by reason of this potential contribution, geography deserves in the curriculum of the secondary school.

EDITH P. PARKER

University of Chicago

William H. Babcock. **Legendary Islands of the Atlantic.** 196 pp., 25 illustrations. American Geographical Society, New York, 1922. $3.50; to libraries and teachers $3.00.

Mr. Babcock has given us a comprehensive summary of the known facts about the legendary islands of the Atlantic. These facts are carefully stated; evidence for and against the various theories are advanced; and a final, if possible, conclusion is drawn. To the geologist, historian, and geographer this study is extremely interesting. To any reader, the first chapter of the book is especially worth while. The introduction gives a history of seafaring nations and their discoveries. The chapter is just ten passages long, but in those ten pages, we pass from the time of Hiram and Solomon, to that of Columbus, Vespucius, and Cabot.

The "age old" problem of Atlantis is taken up and summarily dealt with. Following this is an account of the improbable explorations of St. Brendan. Brazil island, Mayda, and the Island of the Seven Cities attract our attention for a while, and are followed by chapters on Markland, Antillia, and Corvo. Most of the twenty-five illustrations are photographic facsimiles of medieval maps. This fact arouses additional interest. In all, Mr. Babcock has written a delightful, broadminded treatment of an interesting subject.

E. MARIE PUDER

State Teachers College,
Mankato, Minnesota

Mabel C. Stark. **Geographic Regions of South America.** 42 pp., 31 maps and grafs. McKnight and McKnight, Normal, Illinois. 1922.

This regional study of South America is a fundamental contribution to geographic science. For the geographer such an analysis of a continent is both essential and suggestive for further investigation and interpretation of the area. For the instructor in geography the "Geographic Regions of South America" will be invaluable as a class text.

The brief clear interpretation of the term, "Geographic Region," incisively places the emphasis on the significant field of modern geographic science—the relation between physical environment and human activities. Thus the distinction is made between the province of geography, and the realms of other sciences such as physiography, climatology, ecology, zoology and ethnology. The author defines a geographic region as "a unit thruout which the dominant life responses, present or potential, show a close adjustment to the dominant environmental influences." Probably the idea of difference between a region and surrounding areas is assumed by the author to be included in the definition of a geographic region, but this concept of contrast with surrounding sections appropriately might have been included in the definition.

The division of the continent into geographic regions shows careful geographic investigation and interpretation of facts. For the first time regional boundaries in South America have been based on geographic units.

The maps and climatic grafs are valuable features of the book. They effectively depict the outstanding conditions with reference to the distribution of crops and climates and reveal the contrasts from section to section both in physical conditions and life responses.

The author recognizes that some boundaries will need to be changed, and some regions subdivided. The Brazilian Campos is a vast area which is manifestly a tentative geographic unit. Human development there is incomplete and there is little positive human response to physical environmental influences. Only meager information is available regarding the area, consequently its potentialities cannot be measured.

The Chilean Valley is shown to be a unit set off unmistakably by characteristic life responses to a physical environmental unit. Probably its boundaries will remain essentially as now drawn.

The bibliography discloses the extensive and thoro nature of the research and forms a valuable reference list for the teacher.

HELEN M. STRONG

University of Missouri

George C. Chisholm. **Handbook of Commercial Geography.** 824 pp., 34 maps, 8 diagrams. Longmans, Green and Co., New York, 1922. $7.50 net.

The ninth edition of Dr. Chisholm's Handbook of Commercial Geography has recently come from the press. The entire book has been reset making extensive revisions possible. The principal additions are under Climate, Commercial and Industrial Towns, Coal, and the British Isles. The statistical tables have been increased in number but no attempt has been made to bring the data down to date except in the few cases where reliable statistics were available and comparisons of value. A very commendable feature is the list—twelve pages—of different geographical names of the same place, with the pronunciation indicated.

Comment on Dr. Chisholm's book seems superfluous as it has been the standard reference volume for so many years. The author has, indeed, made a great contribution to the literature of the subject and this new edition will be welcomed by teachers thruout the country. No school offering commercial geography should be without this volume.

Frank G. Carpenter. **Around the World with the Children.** 134 pp., 58 maps, drawings and photos. Am. Book Co., New York, 1921.

As the title indicates this book is an introduction to geography for children. It is a series of travel stories to different types of regions and will prove very useful and suggestive for primary work. Among the regions treated are: the cold lands (northern Canada), hot lands (central Africa), dry lands and wet lands, Japan, China, Philippine Islands, Switzerland, and Holland.

Ruth Thompson. **Comrades of the Desert.** Subtitle: Stories of the Adventures of Four Boys in Sagebrush Land. 205 pp., 20 photos. Harr Wagner Co., San Francisco. 1922. $1.25.

Comrades of the Desert is an instructive and fascinating story of four boys on the Mojave Desert who were ambitious to earn money to go to high school. The story portrays the natural physical environment of the desert country, the plant and animal life adjustments, and the pleasures, hardships, and struggles of the four boys who were determined to accomplish their purpose. The boy who reads the first chapter will read thru to the end. It is an excellent book for any juvenile library.